

REMARKS

Claims 1, 3-19, 21-40 and 43-45 are pending in the present application. Claims 7-13, 15-17, 19, 22-29 and 31-40 have been withdrawn. Claims 1, 3-4, 14, 18, 30, and 43-45 have been rejected under § 103 as being unpatentable by Blake et al. (US 6,847,904) (Blake) in view of Tomasz (US 6,400,416) and Amar et al. (US 6,400,416) (Amar). Claims 5-6 have been rejected under § 103 as being unpatentable by Blake in view of Tomasz and Amar, and further in view of Richard et al. (US 6,894,266) (Richard). Claims 5-6 and 21 have been rejected under § 103 as being unpatentable by Blake in view of Tomasz and Amar, and further in view of Collins et al. (US 5,724,009) (Collins).

Dependent claims 5 and 6 have been amended to conform to the language of parent claim 1 (replacing "control" with "selection"). The amendments to claims 5 and 6 were made to correct an inadvertent error, not in response to any rejection.

As mentioned, independent claims 1, 14, and 30 have been rejected under § 103 as being unpatentable by Blake in view of Tomasz and Amar.

Independent claim 1 recites an RF power amplifier formed using an integrated circuit having a plurality of interface pins, comprising "a power amplifier circuit," "a mode selection pin for selecting a first mode or a second mode of operation, wherein the first mode of operation is a serial interface mode and the second mode of operation is a non-serial interface mode," "a first interface pin, wherein the first interface pin has a first function in the first mode of operation and a second function in the second mode of operation," and "a serial interface formed using the integrated circuit for sending and receiving signals."

Blake, and the other cited references, do not teach or suggest a mode selection pin that is used to select first or second modes of operation, or wherein the first mode of operation is a

serial interface mode and the second mode of operation is a non-serial interface mode. In addition, Blake does not teach or suggest an interface pin that has different functions in first and second modes of operation.

Blake discloses a programmable gain amplifier. Blake shows an op-amp 102 formed on an integrated circuit 100 (FIG. 1). The integrated circuit 100 includes a serial peripheral interface 106. The Office Action argues that the chip select (CS) pin would act as a serial bus control pin when the CS is at a logic low level, and would disable the serial bus when the CS is at a logic high level. The Office Action then concludes that the chip select CS pin would read on the claimed "mode control pin" for selecting a serial interface mode or the non-serial interface mode (where the SPI is disabled and the gain is controlled/selected based on the Vref value).

First, Blake does not appear to discuss disabling the serial peripheral interface (SPI) and operating in a non-serial interface mode. The Office Action also does not explain how Blake teaches that gain is controlled based on the reference voltage Vref.

Further, even if one were to add a mode selection pin to the circuit of Blake, there are no teachings of interface pins that have a first function in the first mode of operation and a second function in the second mode of operation. For example, the SI pin would still be a serial data input pin, the SO pin would still be a serial data output pin, the SCK pin would still be a serial clock input pin, etc.

The Office Action alternatively argues that Tomasz teaches all of the claimed limitations, except for a mode control pin and a power amplifier. The Office Action then alleges that by utilizing a chip select CS pin for a 3-wire serial bus as suggested by Blake and Amar, the CS pin would act as the serial bus control pin when the CS is at a logic low and would disable the serial bus when the CS is at the high level. Again, the cited references do not appear to discuss

disabling the serial bus and operating in a non-serial interface mode, as the Office Action suggests. Further, the cited references do not disclose any interface pins that have a first function in the first mode of operation and a second function in the second mode of operation.

For at least these reasons, applicant asserts that claim 1 is allowable over the prior art. Since dependent claims 3-6 depend from claim 1, it is also believed that these claims are allowable over the prior art.

Independent claim 14 recites a wireless communication device comprising "a controller circuit adapted to control the operation of the communication device," "a transceiver," "an RF power amplifier having a mode control pin and a plurality of interface pins, wherein the state of the mode control pin determines whether the RF power amplifier operates using a serial interface mode or a non-serial interface mode, and wherein the plurality of interface pins provide a serial interface with the controller circuit in the serial interface mode and the plurality of interface pins provide a non-serial interface with the controller circuit in the non-serial interface mode," and "a serial bus coupled to the controller, transceiver, and RF power amplifier."

Claim 14 recites a similar limitation as claim 1 and therefore, for at least the reasons set forth above with respect to claim 1, applicant asserts that claim 14 is distinguishable over the cited references.

For at least these reasons, applicant asserts that claim 14 is allowable over the prior art. Since dependent claims 18 and 21 depend from claim 14, it is also believed that these claims are allowable over the prior art.

Independent claim 30 recites a method of controlling an RF power amplifier in a wireless communications device, comprising "providing a baseband controller coupled to a digital bus," "providing an RF power amplifier having a serial interface for communicating with the digital

bus and having a mode control pin," "applying a control signal to the mode control pin to select between a first mode of operation and a second mode of operation, wherein the first mode of operation is a serial interface mode and the second mode of operation is a non-serial interface mode," "providing a first interface pin, wherein the first interface pin has a first function in the first mode of operation and a second function in the second mode of operation," and "coupling the serial interface of the RF power amplifier to the digital bus."

Claim 30 recites a similar limitation as claim 1 and therefore, for at least the reasons set forth above with respect to claim 1, applicant asserts that claim 30 is allowable over the prior art. Since dependent claims 42-45 depend from claim 30, it is also believed that these claims are allowable over the prior art.

It is respectfully submitted that all claims are patentable over the prior art. It is further more respectfully submitted that all other matters have been addressed and remedied and that the application is in form for allowance. Should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Bruce A. Johnson, Applicants' Attorney at 512-301-9900 so that such issues may be resolved as expeditiously as possible. Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 to deposit

account number 50-3864 (Johnson & Associates).

11/5/08
Date

Respectfully Submitted,



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